

## Revision of the south-western Australian genus *Anticoryne* (Myrtaceae: Chamelaucieae)

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### Abstract

Rye, B.L. Revision of the south-western Australian genus *Anticoryne* (Myrtaceae: Chamelaucieae). *Nuytsia* 28: 205–215 (2017). *Anticoryne* Turcz. comprises three species occurring in a relatively small portion of south-western Australia. Stamen morphology is of diagnostic importance for the genus, as is its very dark seed colour. In this revision of the genus, the new species *A. melanosperma* Rye is named and a lectotype is selected for *A. ovalifolia* (F.Muell.) Rye. All species have conservation priority.

### Introduction

This paper presents a taxonomic revision of the myrtaceous genus *Anticoryne* Turcz. *Anticoryne* belongs to the *Hysterobaeckea* (Nied.) Rye group within the tribe Chamelaucieae DC. Its three species are endemic to the South West Botanical Province of Western Australia, extending from near the centre of the province south-eastwards to the coast. Similar methods were used to those outlined in a recent revision of a related genus, *Babingtonia* Lindl. (Rye 2015).

### Taxonomic history

The first collection of *Anticoryne* was made from the Mt Barren Ranges in 1848 during James Drummond's fifth expedition. Turczaninow (1852) named the species *A. diosmoides* Turcz., placing it in his new genus *Anticoryne*, which he considered similar to *Harmogia* Schauer in some respects but with more numerous stamens and differences in the anther connective.

A second species of *Anticoryne* was collected by George Maxwell, who had accompanied Drummond during part of the fifth expedition (Erickson 1969) when *A. diosmoides* was discovered. The new species also occurred in the Mt Barren Ranges. It was named *Harmogia ovalifolia* F.Muell. (Mueller 1860) and subsequently transferred to the genus *Baeckea* L. (Mueller 1864).

Bentham (1867) combined the two species under the name *Baeckea ovalifolia* (F.Muell.) F.Muell. and placed them in sect. *Babingtonia* (Lindl.) Benth. & Hook.f., citing only one specimen (the type) of each taxon. Domin (1923) attempted to reinstate the older name by making the new combination *Baeckea diosmoides* (Turcz.) Domin, but this was not legitimate since the epithet *diosmoides* had already been used for an eastern Australian species of *Baeckea*.

A third, unnamed member of the genus was given the phrase name *B. sp.* Hyden (J.M. Brown 141) by Malcolm Trudgen in 1996. For many years the specimens of *A. diosmoides* were housed as *B. ovalifolia* or *B. aff. ovalifolia* at PERTH, until Trudgen placed them under the phrase name *B. sp.* Thumb Peak (A.S. George 7105) in July 2003. Use of the name *Anticoryne diosmoides* was restored as part of the current study of Chamelaucieae in August 2003, and nine years later the new combination *A. ovalifolia* (F.Muell.) Rye was published (in Rye & Trudgen 2012).

*Anticoryne* was included in an interim key to genera (Rye 2009), in which it was separated from *Babingtonia* by a combination of incomplete character differences and by its distinct distribution. A further difference between the two genera indicated in Rye (2015) was that leaves were more flattened in *Anticoryne* than in *Babingtonia*.

### Molecular evidence

Molecular cladograms based on two chloroplast DNA regions (Lam *et al.* 2002) placed *A. ovalifolia* [as *Baeckea ovalifolia*] in a sister position to *Babingtonia camphorosmae* (Endl.) Lindl.

Using two further chloroplast regions and also the nuclear ETS region, Wilson *et al.* (2005; 2007) placed both *Anticoryne* and *Babingtonia* in a clade that also contained *Malleostemon* J.W.Green, *Scholtzia* Schauer, *Tetrapora* Schauer [as *Baeckea preissiana* Schauer] and the *Baeckea robusta* F.Muell. group [the single species sampled identified as *B. sp.* 'blackallii']. In these analyses, a second species of *Babingtonia* was sampled; this strongly associated with *B. camphorosmae*, while *Anticoryne* was sister to the pair of them.

Analysis of further species has shown that *B. sp.* Hyden is strongly supported as sister to the strongly supported pairing of *A. diosmoides* and *A. ovalifolia* (Peter Wilson pers. comm.). This clade of three species is sister to a clade containing *Babingtonia*, *Malleostemon*, *Scholtzia* and miscellaneous unplaced species, with *Tetrapora* sister to *Anticoryne* plus the latter's sister clade. If this tree reliably represents the relationships between these genera, then it supports the recognition of *Anticoryne* as a distinct genus. An alternative would be to combine all genera into a greatly enlarged *Babingtonia s. lat.* but that would make a large and unwieldy genus, which would be very difficult to justify on morphological grounds. It therefore appears best to retain all five genera for now and to reassess generic boundaries later when more evidence becomes available.

### Distinguishing features of *Anticoryne*

The three species of *Anticoryne* are small to medium-sized shrubs, which regenerate by seed after fires. Their leaves have numerous, very small oil glands visible on both surfaces of the blade. Flowers are large in comparison with most other Chamelaucieae, with a diameter ranging from 10 to 16 mm. Unlike most other members of the *Hysterobaeckea* group, *Anticoryne* has very dark brown to black seeds.

Stamen characters are very important. There are 12 to 45 stamens, usually in a complete circle, but in one species arranged in an irregular circle or mostly in antisepalous groups of two to four with some large gaps. Stamens are free to the base, and have a somewhat to very flattened filament that tapers and is directed somewhat inwards towards the top. The anthers are broadly ovoid to broader distally, sometimes  $\pm$  truncate or slightly 2-lobed at apex, and yellow pollen is extruded from two terminal pores. The connective gland is not obvious as a distinct structure,

being largely or fully incorporated within the body of the anther, appearing as a somewhat swollen connective prior to pollen release, although it may also protrude slightly below the thecae. This kind of anther, with the connective gland fused to other parts of the stamen, is found in all members of the *Hysterobaeckea* group.

The four genera indicated by the molecular data as being closely related to *Anticoryne* all show at least subtle differences in anther morphology. Three of them, *Babingtonia*, *Scholtzia* and *Tetrapora*, were named prior to *Anticoryne* while *Malleostemon* was erected much more recently.

*Malleostemon* is readily distinguished from *Anticoryne* by its 1-loculate ovary and indehiscent fruits. *Scholtzia* differs from *Anticoryne* in having very reduced ovule numbers and indehiscent fruits, while *Tetrapora* is distinguished by its small, usually globular anthers and thinly crustaceous seeds. All three genera also differ from *Anticoryne* in having smaller flowers and narrower stamen filaments.

As is evident from the key to genera and sections of Western Australian Myrtaceae (Rye 2009), *Babingtonia* is most similar to *Anticoryne* on morphological grounds. Its anthers differ either in being more 2-lobed or in having lateral grooves. A character that may give a more complete separation than those used previously is the darker seed colour of *Anticoryne*. Other differences between the genera are that *Anticoryne* occurs east of *Babingtonia*'s distribution (Figure 1), and flowering occurs mainly in spring in *Anticoryne* and mainly in summer in *Babingtonia*.

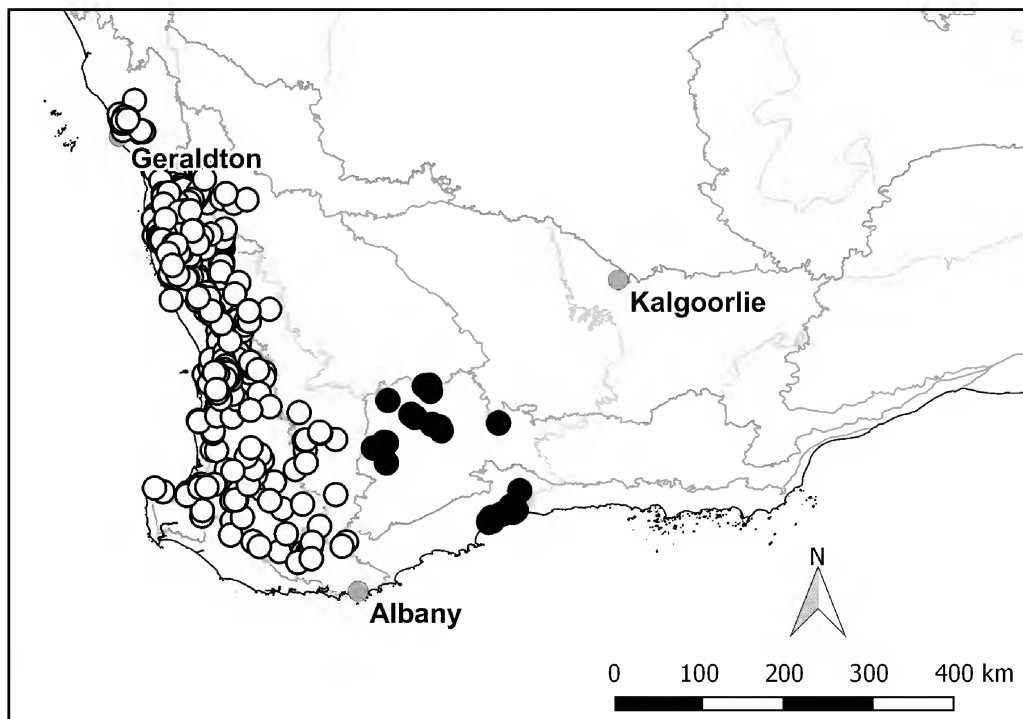


Figure 1. Distribution of *Anticoryne* (●) and *Babingtonia* (○).

### Key to *Anticoryne* and four related genera

1. Ovules of constant number, being solitary or 2 superposed in each loculus depending on the species. Fruits indehiscent, usually 2- or 3-locular (Carnarvon area–near Bunbury–Corrigin area)..... **SCHOLTZIA**
- 1: Ovules of variable number, (2–)4–16 per loculus, radially arranged or (when only 2 present) collateral. Fruits either dehiscent by 2 or 3 terminal valves or indehiscent and 1-locular.
  2. Stamens mostly 3–12, with a thick filament
    3. Ovary 1-locular. Fruits indehiscent (Carnarvon area–near Hyden–E of Kalgoorlie)..... **MALLEOSTEMON**
    - 3: Ovary 3-locular. Fruits dehiscent by 3 valves (Winchester–S coast–Esperance area).... **TETRAPORA**
  - 2: Stamens mostly 3–40, if less than 12 then with a very compressed filament
    4. Flowers 1–16 per peduncle, with sepals 0.2–1.1(–1.5) mm long, petals 1.3–5(–6.5) mm long and 3–26 stamens. Seeds pale to dark brown (N of Northampton–Mount Barker area)..... **BABINGTONIA**
    - 4: Flowers 1 per peduncle, with sepals 1.1–1.6 mm long, petals 4–7 mm long and 12–45 stamens. Seeds very dark brown or black (N of Hyden–Fitzgerald River NP)..... **ANTICORYNE**

### Generic treatment

**Anticoryne** Turcz., *Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Pétersbourg* 10: 332 (1852). *Type: Anticoryne diosmoides* Turcz.

*Shrubs* up to 1.8 m high, single-stemmed at base, glabrous, with opposite and decussate, antrorse to widely spreading leaves densely and relatively uniformly distributed along the branchlets and flowers densely clustered towards ends of branchlets. *Petioles* usually well defined, much shorter than the blade. *Leaf blades* somewhat to much broader than thick, dotted with numerous oil glands on both surfaces; abaxial surface convex except for the midline which is variously keeled, flattened or grooved. *Peduncles* ± absent or up to 7 mm long, 1-flowered. *Bracteoles* persistent at anthesis and often in fruit, with sides incurved. *Pedicels* 1–5 mm long. *Hypanthium* adnate to ovary for most of its length; adnate portion obconic or broadly obconic, rugose-pitted; free portion fairly erect or spreading. *Sepals* 5, erect, persistent and closed inwards in fruit, much shorter than the petals, largely to completely petaline, sometimes with a herbaceous dorsal ridge. *Petals* 5, widely spreading, shed before fruit matures, very shortly clawed, very broadly to compressed-obovate, white or pale pink inside, pink outside where exposed in bud. *Antipetalous colleters* (when present) minute, slender. *Staminodes* absent or very rare. *Stamens* 12–45, free, in a fairly continuous or irregular circle or sometimes mostly antisepalous, the longest ones usually strictly antipetalous or at the margins of the petal claws. *Filaments* not fully erect as leaning inwards towards the stigma, flattened. *Anthers* highly modified, with the 2 cells closely fused, dehiscent by 2 pores; connective gland largely hidden or noticeably protruding at base. *Ovary* 3-locular, partly superior (summit raised at the centre); placentas large, peltate and shield-like, ± sessile or with a very short stalk near the base, with large attachment points around margin; ovules usually 4–13 per loculus. *Style* 2.2–3 mm long, with base inserted in a narrow depression in the summit of the ovary, becoming reddish but the enclosed part pale; stigma capitate, circular from top view, small. *Fruits* 1/2 to largely superior, few- to many-seeded, somewhat 3-lobed; valves 3, opening widely; placentas with adaxial surface angled shallowly along centre above a moderately broad attachment towards base. *Seeds* radially arranged on the placenta, 0.9–1.3 mm long, distinctly to scarcely faceted,

very dark brown or black, scarcely colliculate to shortly tuberculate; hilum small or moderately large. *Chaff pieces* faceted or compressed, crustaceous, brown.

*Distribution.* *Anticoryne* extends from the Hyden area south-east to Fitzgerald River National Park (Figure 1). Geographical separation of all three species appears to be complete although two of them are largely or fully restricted to the same national park (see below) in the south. The northern species is separated from the two southern species by more than 100 km.

*Phenology.* Flowering is recorded mainly from August to November, with no apparent difference in flowering time between the species.

*Etymology.* From the Greek *anti-* (against) and *koryne* (club), presumably in reference to the club-like anthers.

*Co-occurrence.* Two of the species are endemic to an area close to the south coast of Western Australia between Bremer Bay and Ravensthorpe, where they occupy a very similar habitat, mainly on quartzite, extending from Middle Mt Barren north-east to Annie Peak in the Eyre Range. *Anticoryne ovalifolia* is largely restricted to an area to the south-east of the range of *A. diosmoides*, but less than 10 km away, although there is one record of it from the north-east.

### Key to species of *Anticoryne*

1. Leaf blades  $\pm$  oblong in outline, 0.6–1 mm thick. Peduncles  $\pm$  absent but pedicels 1.3–2.5 mm long. Seeds scarcely faceted,  $\pm$  reniform, with a shortly tuberculate outer surface (Hyden–Dongolocking NR–near Forrestania)..... **A. melanosperma**
- 1: Leaf blades very broadly obovate to almost linear, not very thick. Peduncles 2.5–7 mm long, often exceeding the 1–5 mm long pedicels. Seeds faceted, with a smooth to slightly colliculate outer surface.
  2. Leaf blades 1.2–2.3 mm wide,  $\pm$  entire. Outer sepals slightly ridged. Stamens 20–45, in a continuous circle (Middle Mt Barren–Annie Peak)..... **A. diosmoides**
  - 2: Leaf blades 2–4 mm wide, the margins with coarse laciniae up to 0.2 mm long. Outer sepals prominently ridged. Stamens 12–17, with gaps present (near East Mt Barren) ..... **A. ovalifolia**

*Anticoryne diosmoides* Turcz., *Bull. Cl. Phys.-Math. Acad. Imp. Sci. Saint-Pétersbourg* 10: 332 (1852). *Baeckea diosmoides* (Turcz.) Domin, *Věstn. Král. České Společn. Nauk. Tř. Mat.-Přir.* 2: 83 (1923), *nom. illeg. non* Sieber ex DC., *Prodr.* 3: 230 (1828). *Type:* Nova Hollandia [Stirling Range to Cape Riche and Mt Barren Range, Western Australia], 1847–1849, *J. Drummond* 5: 124 (*holo:* KW 001001300; *iso:* MEL 72890, PERTH 06391176).

*Baeckea* sp. Thumb Peak (A.S. George 7105), G. Paczkowska & A.R. Chapman, *West. Austral. Fl.: Descr. Cat.* p. 387 (2000); Western Australian Herbarium, in *FloraBase*, <https://florabase.dpaw.wa.gov.au/> [accessed 25 October 2016].

*Illustration.* W.E. Blackall & B.J. Grieve, *How Know W. Austral. Wildflowers* 3A: 87 (1980) [as *Baeckea ovalifolia*].

*Shrub* erect, open, 0.5–1.8 m high, commonly c. 1.5 m wide; flowering branchlets with usually 1–4 pairs

of flowers. *Petioles* 0.8–1.1 mm long. *Leaf blades* mostly linear to narrowly ovate, 6–8 mm long, 1.2–2.3 mm wide, thickened towards apex but thin elsewhere, green, entire or slightly serrate along the margins, without an apical point; abaxial surface convex, with oil glands in 2 or 3 main rows on each side of the midvein; adaxial surface concave except towards apex. *Peduncles* 2.5–5 mm long. *Bracteoles* narrowly ovate or ± narrowly elliptic (when flattened), 3–4 mm long. *Pedicels* 1–4 mm long. *Flowers* 12–16 mm diam. *Hypanthium* c. 1.5 mm long, c. 4 mm wide; free portion c. 0.5 mm long, often reddish-tinged. *Sepals* depressed-ovate, 1.2–1.5 mm long, c. 3 mm wide, deep pink with a white border, entire, very obtuse, not keeled. *Petals* 5–7 mm long, white or pale pink. *Stamens* 20–40(–45), in a continuous circle (with the bases of the filaments abutting each other or separated by a gap that is much narrower than the filaments) and tending to alternate in length. *Longest filaments* 2–2.5 mm long, the broadest ones 0.3–0.5 mm wide at base, red-tinged at summit. *Anthers* broadly and irregularly obovoid, c. 0.5 mm long, c. 0.35 mm wide. *Ovary* 1/2–2/3 inferior; ovules 7–13(–15) per loculus. *Style* 2.2–3.3 mm long; stigma c. 0.2 mm diam. *Fruits* 1/2–2/3 superior, 2–2.5 mm long, 3.5–4 mm diam. *Seeds* strongly faceted, 1.1–1.3 mm long, 0.4–0.7 mm wide, 0.6–0.8 mm thick, minutely colliculate, shiny; hilum not exceeding 0.1 mm diam.

*Diagnostic features.* Distinguished from the other species of *Anticoryne* by its longer petioles and more numerous stamens, also tending to have more numerous ovules.

*Selected specimens examined.* WESTERNAUSTRALIA: [localities withheld for conservation reasons] 3 Oct. 2008, S. Barrett 1808 (PERTH); 23 Sep. 1925, C.A. Gardner 1862 (PERTH); 2 Dec. 1960, A.S. George 1948 (PERTH); 2 Nov. 1965, A.S. George 7253 (PERTH); 16 July 1970, A.S. George 10086 (PERTH); 29 Nov. 2002, M. Hislop 2889, S. Barrett & J.A. Cochrane (PERTH); 10 Oct. 2003, M. Hislop 3039 (NSW, PERTH); 27 Oct. 1967, K.R. Newbey 2728 (PERTH).

*Distribution and habitat.* Endemic to the Barren Range in Fitzgerald River National Park, extending from Middle Mt Barren north-east to Annie Peak (Figure 2). Occurs on quartzite pavements and rocky slopes, in heath, sometimes with *Melaleuca citrina* or *Banksia*.

*Phenology.* Flowers mainly from September to November, with mature fruits recorded from October to December.

*Conservation status.* Listed by Smith (2017) as Priority Four under Department of Parks and Wildlife Conservation Codes for Western Australian Flora. The known range of *A. diosmoides* is c. 40 km long and entirely contained within a large national park; therefore, the species is considered rare but not currently threatened.

*Notes.* This species is unusual in sometimes having shorter stamens directly opposite the centre of a petal than those at the margins of the petal claw, this effect resulting from the tendency for the species to have alternating long and short stamens. One specimen (A.S. George 7253) has greater numbers of stamens than the other specimens examined. That specimen was recorded as having up to 45 stamens and up to 15 ovules by Sandra Maley (unpubl. data), although the current study recorded a maximum of 41 stamens and 13 ovules based on a small sample of flowers.

*Anticoryne diosmoides* seems to occupy a very similar habitat to *A. ovalifolia*, and there is hardly any geographic separation of the two taxa. While obviously closely related, the two species are very easy to distinguish from one another. *Anticoryne diosmoides* has longer petioles, and it has longer, narrower leaves than the upper leaves (on flowering branches) of *A. ovalifolia*, although leaves borne on the

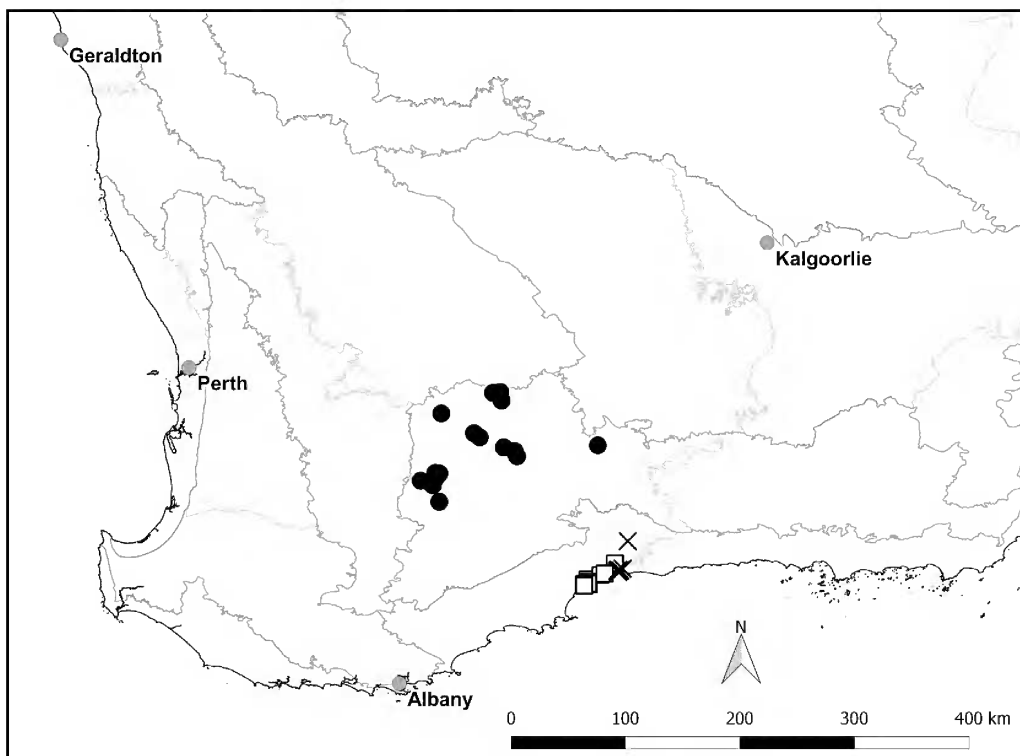


Figure 2. Distribution of *Anticoryne diosmoides* (□), *A. melanosperma* (●) and *A. ovalifolia* (×).

lower branches of *A. ovalifolia* may also be long and narrow. The margins of both kinds of leaves on *A. ovalifolia* have coarse laciniae, which are absent in *A. diosmoides*. Floral differences are also obvious between the two taxa, especially differences in their sepals and stamen numbers as used in the key.

***Anticoryne melanosperma* Rye, sp. nov.**

*Typus*: Hyden–Narembeen road, Western Australia [precise locality withheld for conservation reasons], 16 October 1975, G. Perry 520 (*holo*: PERTH 04367200; *iso*: CANB, K, MEL).

*Baeckea* sp. Hyden (J.M. Brown 141), G. Paczkowska & A.R. Chapman, *West. Austral. Fl.: Descr. Cat.* p. 348 (2000); Western Australian Herbarium, in *FloraBase*, <https://florabase.dpaw.wa.gov.au/> [accessed 25 October 2016].

*Shrub* 0.2–1 m high, the only width record being 0.5 m; flowering branchlets with 1–5 or more pairs of flowers, which tend to form a globular terminal cluster, with the uppermost leaves rather bract-like. *Petioles* 0.3–0.6 mm long. *Leaf blades* ± oblong in outline, 3–6 mm long, 1–1.8 mm wide, 0.6–1 mm thick, with keel thickened especially towards apex, green, entire or with coarse laciniae up to 0.1 mm long, the apical point (when present) up to 0.2 mm long; abaxial surface deeply convex to more shallowly angled, often furrowed along the midvein and with sloping, flatter sides, with oil glands in c. 4 main rows on each side of the midvein; adaxial surface concave to slightly convex. *Peduncles* ± absent. *Bracteoles* broadly ovate to broadly elliptic, 2.5–4.5 mm long, with the broad

scarious margin reddish (becoming brown when dried). *Pedicels* 1.3–2.5 mm long. *Flowers* 10–14 mm diam. *Hypanthium* 1.3–2.3 mm long, 4–4.5 mm diam.; free portion 0.8–1 mm long. *Sepals* depressed-ovate, 1.5–2.5 mm long, 4–4.5 mm wide, deep pink with a white or pink border, entire, very obtuse, not ridged. *Petals* 4–5 mm long, white. *Stamens* 14–25, in a continuous circle (with the bases of the filaments abutting each other or separated by a gap that is much narrower than the filaments) the longest ones antipetalous. *Longest filaments* 1.7–2.5 mm long, the broadest ones 0.5–0.6 mm wide at base. *Anthers* broadly and irregularly obovoid, 0.5–0.6 mm long, c. 0.5 mm wide. *Ovary* 1/2 to largely superior; ovules 4–9 per loculus. *Style* 2–3 mm long; stigma c. 0.2 mm diam. *Fruits* largely superior, 2.5–3 mm long, c. 4 mm diam. *Seeds* ± reniform, 1–1.3 mm long, 0.6–0.7 mm wide, 0.7–0.8 mm thick, shortly tuberculate; hilum 0.2–0.3 mm diam.

*Diagnostic features.* Distinguished from the other species of *Anticoryne* by its thicker leaves, ± absent peduncles, ± reniform seeds with a shortly tuberculate outer surface, and usually fewer ovules.

*Selected specimens examined.* WESTERN AUSTRALIA: [localities withheld for conservation reasons] 11 Sep. 1990, B. & B. Backhouse s.n. (PERTH 01454331); 26 Oct. 2005, A.M. Coates 5006 (NSW, PERTH); 15 Oct. 1984, E.J. Croxford 3898 (PERTH); 18 Nov. 2007, T. Erickson TEE 230 (PERTH); 20 Oct. 1999, K. Kershaw 2003 (AD, BRI, PERTH); 11 Aug. 1976, B.G. Muir 305 (2.1) (PERTH); 13 Oct. 1963, K. Newbey 1055 (PERTH).

*Distribution and habitat.* Extends from north-west of Hyden south to Dongolocking Reserve and east to near Forrestania (Figure 2), on sandplains, in sand over laterite or rarely associated with granite.

*Phenology.* Flowers are recorded from July to November and mature fruits from October to November.

*Conservation status.* Listed by Smith (2017) as Priority Three under Department of Parks and Wildlife Conservation Codes for Western Australian Flora, under the name *Baেকেea* sp. Hyden (J.M. Brown 141). The recorded range for *A. melanosperma* extends c. 125 km from north to south and 140 km from west to east.

*Etymology.* From the Greek *melano-* (black, very dark) and *-spermus* (-seeded). The dark colour of the seeds is an unusual character within the *Hysterobaেকেea* group of genera and therefore useful in defining the genus *Anticoryne*.

*Notes.* This species is well separated both morphologically and geographically from the other two species of *Anticoryne* (see key above). Its seeds are similar in colour to those of the other two species but differ in being more or less reniform and tuberculate; in most respects they resemble seeds of some species of *Rinzia* Schauer, a genus in which ant-dispersal is apparently common (see Rye 2017). They lack an aril but the relatively large hilum might contain some fleshy material. The hilum is coloured white, contrasting with the very dark testa, as is the aril of most *Rinzia* species.

***Anticoryne ovalifolia*** (F.Muell.) Rye, in B.L. Rye & M.E. Trudgen, *Nyctisia* 22: 393 (2012). *Harmogia ovalifolia* F.Muell., *Fragm.* 2: 32 (1860). *Baেকেea ovalifolia* (F.Muell.) F.Muell., *Fragm.* 4: 72 (1864). *Babingtonia ovalifolia* (F.Muell.) F.Muell., *Fragm.* 4: 74 (1864). *Type:* East Mt Barren Range, Western Australia, 1848–1860, G. Maxwell 407 (*lecto*, here designated: MEL 72889; possible *isolecto*: MEL 76240).

*Illustration.* M.G. Corrick, B.A. Fuhrer & A.S. George, *Wildflowers Southern W. Austral.* Figure 430 (1996) [as *Baেকেea ovalifolia*].



*Shrub* erect, open, 0.4–1.8 m high, 0.35–1.5 m wide; flowering branchlets with usually 1–7 pairs of flowers. *Petioles* 0.2–0.6 mm long. *Leaf blades* often somewhat recurved in distal half, narrowly ovate to very broadly obovate, 3–8 mm long, 2–4 mm wide, thin, green or silvery, with coarse laciniae up to 0.2 mm long around the margin, acute to broadly obtuse, without an apical point; abaxial surface convex, with oil glands in 3–5 main rows on each side of the midvein; adaxial surface concave except towards apex. *Peduncles* 3–7 mm long. *Bracteoles* ovate to narrowly obovate, tending to be loosely folded, 2.5–4 mm long. *Pedicels* 2.5–5 mm long. *Flowers* 11–15 mm diam. *Hypanthium* c. 2 mm long, 3–4 mm wide; free portion c. 0.5 mm long. *Sepals* very depressed-ovate, 1.1–1.6 mm long, 2.5–3 mm wide, green on the strongly ridged base, the remainder deep pink to pink-purple below a broad white margin or deeply coloured throughout. *Petals* 4–6 mm long, white. *Stamens* 12–17, in an irregular circle or in antisepalous groups of 2–4 opposite the sepals, in the latter case sometimes with 1 or 2 almost directly opposite petals, usually with some gaps between the stamens that exceed the width of the filaments. *Longest filaments* 1–1.6 mm long, the broadest ones 0.25–0.4 mm wide at base. *Anthers* ± broadly ovoid, c. 0.4 mm long, c. 0.35 mm wide. *Ovary* largely inferior; ovules 6–10 per loculus. *Style* 2.2–3 mm long; stigma less than 0.2 mm diam. *Fruits* 1/2–2/3 superior, 2.2–2.8 mm long, 3–4 mm diam. *Seeds* strongly faceted, 0.9–1.3 mm long, 0.5–0.7 mm wide, 0.6–0.8 mm thick, minutely colliculate, shiny; hilum not exceeding 0.1 mm diam. (Figure 3)

*Diagnostic features.* Distinguished from the other species of *Anticoryne* by its more lacinate, often broader leaves, more widely spaced stamens, and more ovoid anthers.



Figure 3. *Anticoryne ovalifolia* flowers. Image taken by Peter Rye (voucher B.L. Rye BLR 279045).

*Selected specimens examined.* WESTERNAUSTRALIA: [localities withheld for conservation reasons] 28 Oct. 1963, *T.E.H. Aplin* 2715 a (PERTH); 12 Jan. 1979, *B. Barnsley* 549 (CBG); 18 Oct. 1964, *C.A. Gardner* 14883 (AD, BRI, PERTH); 26 Nov. 1931, *C.A. Gardner & W.E. Blackall* 1422 (PERTH); 12 Oct. 1989, *P. Hodan* 126 (PERTH); 25 May 1983, *G.J. Keighery* 6098 (KPBG, PERTH); 5 Aug. 1974, *G. Perry* 102 (CANB, NSW, PERTH); 18 Sep. 2007, *B.L. Rye* BLR 279045 (MEL, PERTH); 25 Aug. 1982, *N.G. Walsh* 1037 (PERTH); 9 Aug. 2003, *Peter G. Wilson* 1642 & *G.M. Towler* (PERTH).

*Distribution and habitat.* Occurs in the far south-east of Fitzgerald River National Park, with an isolated record (*G.J. Keighery* 6098) from north-east of the park (Figure 2), recorded mainly on rocky quartzite slopes with *Banksia* dominant, also recorded in near-coastal heath on granite and with mallees on greenstone.

*Phenology.* Flowers mainly from August to November and mature fruits recorded mainly from October to December.

*Conservation status.* Department of Parks and Wildlife Conservation Codes for Western Australian Flora: Priority Two (Smith 2017). This species appears to be highly restricted, occurring naturally only on or within a few kilometres of one of the highest peaks, assuming the isolated record (see above) is an introduction.

*Typification.* Two MEL sheets of this species were examined. While they are sufficiently similar to have been part of the same gathering, only one of them, MEL 72889, is annotated by Mueller with the locality ‘East Mount Barren Range’ and the name *Harmogia ovalifolia*. This sheet, which also bears Maxwell’s collection label, is therefore selected as the lectotype. The other sheet, MEL 76240, which is annotated by Mueller as ‘Baeckea S.W. Australia Maxwell’ is treated as a possible isolectotype.

*Notes.* The basal branchlets of seedlings sometimes have more or less linear leaves. Young plants have their lower branchlets densely covered by much narrower leaves than those found on the flowering branchlets.

See the notes under *A. diosmoides* for a comparison with that species.

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